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1. The firm of Koch and Stertzel in Dresden, Germany, was dismantled by the Soviets in the fall of 1945. The dismantled equipment consisted of machine tools, the laboratories, all the blueprints from the construction bureau, and high voltage test equipment. The material was carefully packed by German workers and loaded on railroad freight cars. Some of the crates bore the inscription: "Via Prague - Budapest - to Moscow, Kursk Station, branch line Kommunalka". This equipment was routed to Teplyy Stan, a town 24 km southeast of Moscow. Two Soviet officers went along with the train to supervise the delivery. Other pieces of equipment were sent to Leningrad, and a third shipment was destined for some town east of the Ural Mountains. All construction plans and blueprints removed from the construction bureau were sent to Teplyy Stan,

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2. Among the blueprints kept in the construction office at Teplyy Stan were the plans and drawings of a three million volt installation for atom smashing. This unit had not been built at the Koch and Stertzel plant, but was constructed in the Elektrische Werke at Osterode, in the Harz Mountains. It was finished during the war. When the US forces occupied Osterode, the unit was moved to Thuringia; I believe to the salt mines at Stassfurth. The US forces either did not find the installation or they did not pay any attention to it. Subsequently, the Soviets discovered the unit, dismantled it, and installed it temporarily in an exhibition hall in Dresden. I never saw the unit, but I am familiar with the blueprints and construction plans for it.

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3. After the war, the Soviets assigned Koch and Stertzel in Dresden the job of designing and building a betatron. While I know that this job was completed, I am not familiar with the drawing or the equipment. I do not know if the drawings for the betatron were sent to Teplyy Stan, but I do know that when the firm of Koch and Stertzel was liquidated in 1947 or 1948, all drawings and blueprints were transferred to the USSR, most of them to Teplyy Stan.

4. [redacted]

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25X1 [redacted] In the 1920's, and until the war between Germany and the Soviet Union, the X-ray factory at Teplyy Stan was one of the most important X-ray factories in the Soviet Union. During the war, the plant equipment was moved to some place east of the Ural Mountains. The plant was then used as a munitions factory for the filling of bombs or shells. After WW II, the X-ray factory was re-established with the Koch and Stertzel equipment taken from Dresden, while the factory east of the Urals probably was maintained with the original Teplyy Stan equipment.

5. The plant buildings are situated on a large tract of ground (approximately 20 thousand square meters). Between 1200 and 1500 workers were employed at the plant. When I left, new buildings were being erected, and I assumed that an expansion of plant production was intended.

6. The building referred to as "Laboratory #3" is a new building approximately 30 m in length, width and height, with a luxurious front office, and columns at the entrance. It was erected in the southern part of Moscow, right next to the large Union Building, and at the fringes of the new university city, which is the largest building project in Moscow today. I have never been inside the building, and I do not know its use. It was rumored, however, that this building was designed to house the previously mentioned three million volt atom smasher removed by the Soviets from Thuringia. It was initially planned that German engineers would install the apparatus, but it was later decided that the Soviets would handle the project all by themselves. I believe that the laboratory was part of the Academy of Science; at least, the Academy was in the immediate vicinity of this new building. This is the extent of my knowledge of "Laboratory #3".

7. The plant at Teplyy Stan was directly subordinated to the Electrotechnical Department of the Ministry for Machine Construction. It was rumored that the Ministry was going to establish a special construction bureau in the new four-story building which was under construction at the plant at the time I left the USSR.

8. Before the war Teplyy Stan was known as the Moscow X-ray factory. After the war, when it was reconverted from a munitions works to an X-ray plant, it was known as Zavod #596. In the plant, X-ray machines were assembled, and transformers, regulators, and stabilizers for X-ray machines were produced. Not all of the components produced at the plant at Teplyy Stan were used in the X-ray machines, however; a large part of the output was sent to Moscow, where it was distributed to other producers. I believe there is another plant producing transformers somewhere in Moscow. This plant is using the methods and the dismantled equipment taken from the former AEG in Berlin-Oberschoeneweide, now called "Transmotoren Werke, Berlin-Oberschoeneweide".

9. [redacted] at Teplyy Stan, the factory was just resuming production. [redacted] in July 1951, the plant had reached a production rate of 30-40 completed X-ray machines per month. These were mostly designed for medical use and were equally divided between therapeutical machines and diagnostic machines. These units were in serial production at Teplyy Stan. They had a working voltage of 120-150 thousand volts. The apparatus with the highest voltage, 400 thousand volts, was designed for industrial use in material testing. The tubes for these machines were produced in a plant in Leningrad, the name of which I do not know. The tubes were made of glass, not of metal. The tubes, installed in the assembled machines at Teplyy Stan, were oil-cooled. The transformer oil used, however, was not satisfactory because it showed a tendency for coking too easily. Only cascade tubes which were grounded unilaterally were water-cooled. The machines produced were not only built according to the blueprints taken from Koch and Stertzel, but American, English, French and Italian designs were also produced. American equipment was copied frequently. The quality of the products improved considerably [redacted] and it would be safe to say that by 1951 the Soviets had caught up with the technical know-how which Koch and Stertzel possessed in 1945. The machines produced in 1951 were good instruments, built with precision.

10. Three or four of the 400 thousand volt X-ray machines to be used for industrial research were completed and ready for testing. The transformers built into these machines were three cascade transformers filled with oil--ie, three transformers connected in series. The tubes were cascade tubes made of glass, water-cooled, and operating in six stages arranged in the same manner as US models. The machine was mounted in a case about 55 cm in diameter and one meter long; the transformers were installed in the same casing as the tube. The hollow anode, which was water-cooled, protruded from the casing. The machine did not have a separate rectifier unit.

11. Another X-ray unit which was still in the experimental stage at the time of my departure was a field X-ray set operating at 80 thousand volts. The machine was encased in a box about 60 cm by 40 cm, and 40 cm high. The transformer was built into the case. It did not have a rectifier tube. The tube used in this machine will only permit one current to pass through in any case. It will, for this reason, require a longer exposure, but it saves a lot of space. It is oil-cooled, and has a hot cathode. I estimate that by now the field X-ray machine should have passed through the experimental stage, and should be ready for serial production. Most of the X-ray machines assembled at Teplyy Stan had only one tube. One machine, however, was built which had two tubes which could be switched on alternately, but not together.

12. The plant also produced transformers for X-ray machines, primarily small governor transformers and special transformers from 2-10 kV. The biggest transformers produced at Teplyy Stan were rated at 400 thousand volts. In the spring of 1951, Teplyy Stan produced about 500 transformers of all descriptions per month. An experimental 400 thousand volt transformer for an X-ray machine was completed, but at the time of my departure had not passed the state test, and therefore had not gone into serial production.

13. About five hundred 15 thousand volt regulators are produced at Teplyy Stan every month. Not all these regulators are used in the plant, but are sent to Moscow for sale or distribution. Their design follows the US practice, having a round iron core, while the products of Koch and Stertzel in Dresden used to have an oblong iron core. They use oil insulation.

14. The rectifiers for the X-ray machines were neither mercury nor selenium rectifiers, but had elements of glycatron (trade name: kematron). The models produced at Leningrad were large and clumsy, representing the state of German development of approximately 10 or 20 years ago. On the other hand, it must be said that the development of X-ray machines in the USSR has made great progress, and that the machines produced in 1951 would compare favorably in their neatness and precision of construction to foreign models.

15. High voltage lines for use up to 200 thousand volts were copied from US models. The cable was produced somewhere in the vicinity of Moscow.

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16. At Teplyy Stan the Soviets are planning to develop high voltage direct current installations, but by the time of my departure had not yet started with the execution of such plans.

17. The engineers and scientists working in the plant at Teplyy Stan were trained well enough to thoroughly understand the construction of the equipment produced at the plant. Nobody, however, ever interferred in any way with the operations of another department. If there were glaring mistakes in the design of some piece of equipment, none of the other departments, even though aware of the mistakes, would move a finger to correct them. The departments were concerned that their own work was all right, but they did not feel responsible for the total product. As long as they can avoid the accusation of sabotage, the individual departments are satisfied with limited responsibility. I did not notice any change of attitude in this respect at Teplyy Stan. It does happen, however, in rare cases, that one engineer takes the entire responsibility for the project on his own initiative; such a man is usually judged a fool by his wiser colleagues.

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18. The pressure of work in our plant was not too great. In my estimation, every plant can fulfill its production quota quite easily. Repeatedly the material for our products arrived late, particularly metals like tungsten and beryllium, but the plant was always able to fulfill its quota, either by working many hours of overtime, or by producing the value of the quota rather than the number of finished units specified. Apparently, the quota has a monetary value as well as a specified number of units of output. For the fulfillment of the quota, it was sufficient to deliver the equivalent of the monetary value, even if the unit quota was not met.

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(These visitors described to me the Soviet's method of exploiting their knowledge. It was as follows:

The same assignment was given to four different specialists without their knowing about each other. When each finished the assignment, the Soviets compared the four reports, picked out the best features

of each one, and gave the same or a similar assignment with some suggestions for alterations or improvements to the same group. When the new reports were written, they gave the reports of the other three to each member of the group, after deleting the source of the report, for comment and criticism. The final reports were then used as the basis for the development of a type of airplane or a part of an airplane.)

20. The airfield where the Podberesje planes were tested was just west of Teplyy Stan. In the years 1947-49, [redacted] fighter planes in the air daily, flying in close formation, and performing very precise maneuvers. The planes had wings that were swept forward and an unknown number of jet engines. This type disappeared from the air about the end of 1949 and was supplanted by a type of plane which had swept-back wings and a tricycle landing gear. It appeared larger than the previous type, but was also flying in close formations of sometimes as many as 30 planes. I remember that the horizontal stabilizer of this plane was mounted very high on the tail assembly. I do not know if the planes were flown by Soviet or German pilots, but the formations were very precise, and the maneuvers were carried out with great skill.

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